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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,903	02/17/2004	Binling Zhou	TI-36355 (0437-A-293)	9629
23494	7590	07/07/2006	[REDACTED]	EXAMINER
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			TON, MY TRANG	
			[REDACTED]	ART UNIT
				PAPER NUMBER
			2816	

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/779,903	ZHOU ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	My-Trang N. Ton	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 April 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-26 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-26 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 17 February 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

MY-TRANG NUTON  
PRIMARY EXAMINER

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

In response to Applicant's remarks filed on 4/7/06, the drawings objection made in the last Office action is withdrawn.

### ***Claim Rejections - 35 USC § 112***

In response to Applicant's remarks filed on 4/7/06, the 112 rejection made in the last Office action is withdrawn.

### ***Claim Rejections - 35 USC § 103***

Claims 1-26 remain rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art depicted by Applicant's Figs. 1-2 and further in view of Verhaeghe et al (U.S Patent No. 5,479,132) (or Rapp (U.S Patent No. 5,280,420) or Jung (US 2005/0127885)) for the reasons recited in the last Office action.

Regarding claim 12: the limitation "a plurality of analog-to-digital converters" is seen in elements 2-1, 2-N/2 of the prior art, Fig. 1.

### ***Response to Arguments***

Applicant's arguments filed 4/7/06 have been fully considered but they are not persuasive. Examiner has thoroughly reviewed Applicant's arguments but firmly

believes that the cited reference reasonably and properly meet the claimed limitation as rejected.

Applicant's argument – a simple substitution of capacitor types is not obvious.

Examiner's response - Applicant's arguments regarding "an MOS capacitor" is not well taken since it is notoriously well known and demonstrated in the art that if designer wish reducing size and having high integration density, there is well-known way to do such as: the capacitor is generally employed as MOS capacitor.

With the advance of today's technology, it would have been obvious at the time the invention was made for one skilled in the art to realize that capacitor 20 of prior art, Fig. 2 can be implemented as the MOS capacitor. This implementation is preferred because MOS capacitors are more efficiently implemented in silicon than capacitors. Thus, the limitation "MOS capacitor" remains rejected for the reasons recited in the last Office action. Beside Verhaeghe et al, Rapp or Jung's references cited on the last Office action to show the well-known feature, several prior arts also teach such well-known substitution (for example: Rapp (U.S Patent No. 5,280,420: col. 7, lines 10-16) or Tobita et al (U.S Patent No. 5,544,102: col. 7, lines 43-49)).

Therefore, applicant's remarks cannot be found persuasive.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Trang N. Ton whose telephone number is 571-272-1754. The examiner can normally be reached on 7:00 a.m - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



My-Trang N. Ton  
Primary Examiner  
Art Unit 2816

June 20, 2006